

Appl. No.:
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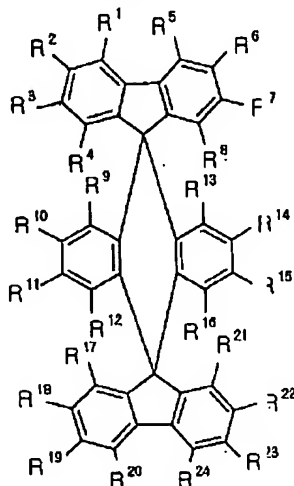
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: March 14, 2002

AMENDMENTS TO CLAIMS AND PENDING CLAIMS

Please cancel Claims 23-88 without prejudice.

Please amend Claims 2, 3, 5 and 6 as follows:

- (Original) A chemical compound of Chemical Formula I:



Chemical Formula 1

wherein R1 through R24 are substituent groups, identical or different, and wherein not all of R1 through R24 are hydrogen.

- (Currently Amended) The chemical compound of Claim 1, wherein one or more of R1-R24 are selected from the aryl group consisting of phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl, perylenyl, coronenyl, and heteroaryl, which are either substituted or unsubstituted.

- (Currently Amended) The chemical compound of Claim 2, wherein the aryl groups are further substituted with one or more phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl, perylenyl, coronenyl or heteroaryl, which are either substituted or unsubstituted.

- (Original) The chemical compound of Claim 1, wherein one or more of the R1-R24 are selected from the heteroaryl group consisting of thiophenyl, thiazolyl, oxazolyl, imidazolyl, and pyrazinyl, either substituted or unsubstituted.

- (Currently Amended) The chemical compound of Claim 1, wherein one or more of R1-R24 are selected from the group consisting of amines with at least one aryl substituent and aryl including phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl,

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perylene, coronene and heteroaryl.

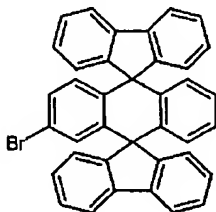
6. (Currently Amended) The chemical compound of Claim 1, wherein at least one of R1-R24 is anthracenyl or heteroaryl.

7. (Original) The chemical compound of Claim 1, wherein the substituent groups R1 through R24 can be substituted by one or more organic moieties satisfying General Formula I.

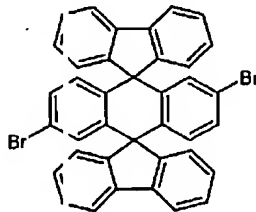
8. (Original) The chemical compound of Claim 1, wherein one or more of the R3, R7, R10, R11, R14, R15, R18, and R22 are substituted with non-hydrogen substituent groups.

9. (Original) The chemical compound of Claim 1, wherein one or more pairs of R3 and R7; R18 and R22; R10 and R15; and R11 and R14 are substituted with non-hydrogen substituent groups.

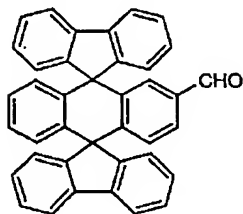
10. (Original) The chemical compound of Claim 1, wherein the compound is selected from the group consisting of Chemical Compounds 1-11, 100-137, 200-222, 300-308, and 400-413 as shown below, and wherein "Br" in Chemical Compounds 1, 2 and 5-7 may be substituted with another leaving group:



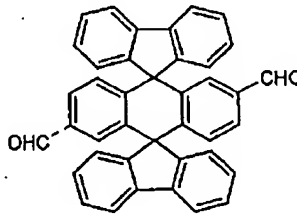
Chemical Compound 1



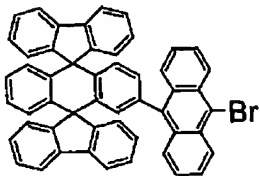
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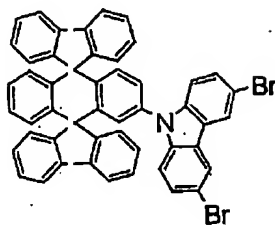
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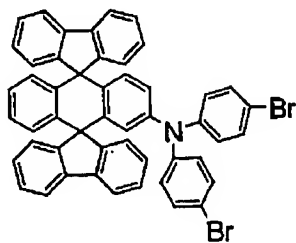
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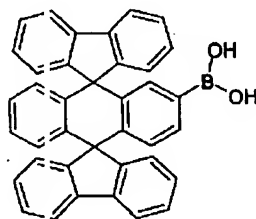
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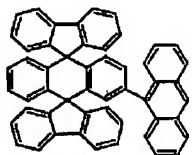
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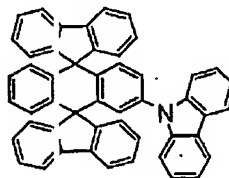
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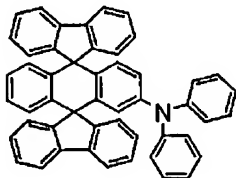
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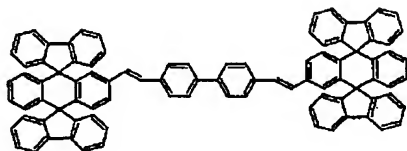
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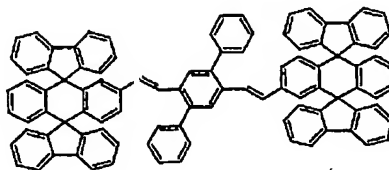
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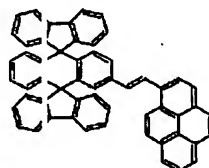
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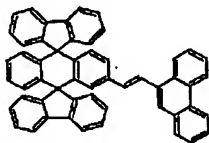


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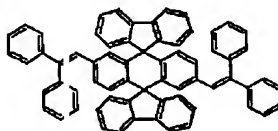


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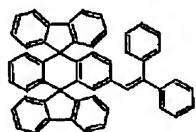
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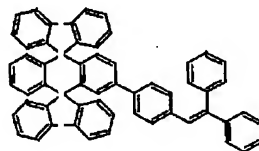
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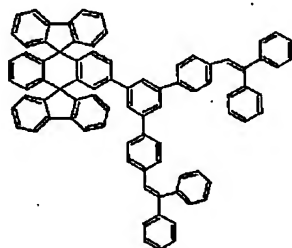
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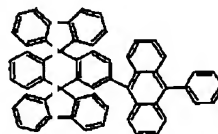
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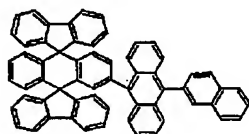
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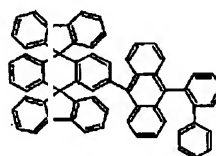
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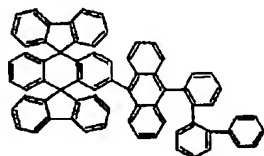
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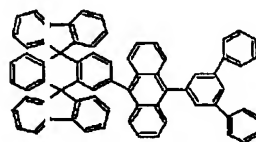
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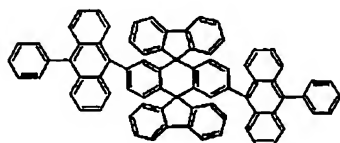
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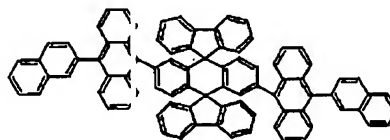
Chemical Compound 111



Chemical Compound 112



Chemical Compound 113

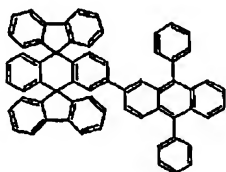


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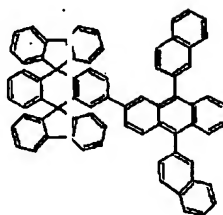
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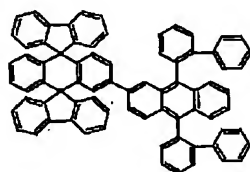
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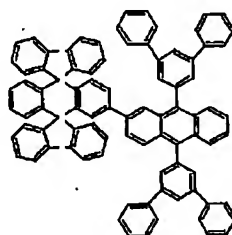
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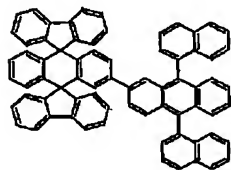
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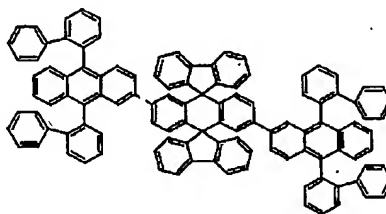
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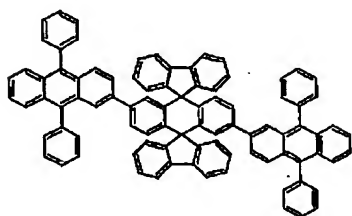
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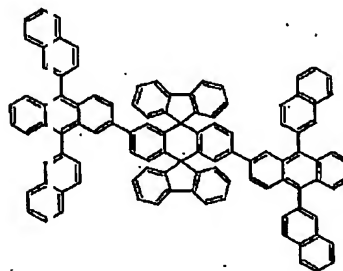
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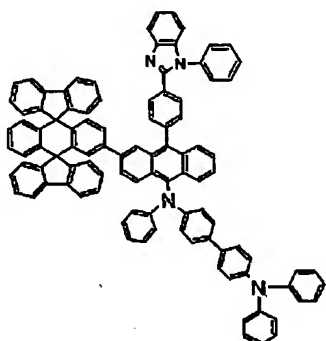
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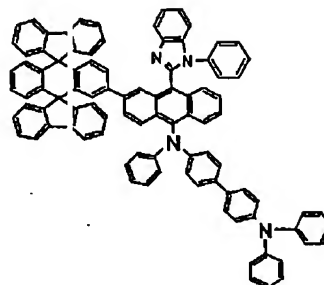
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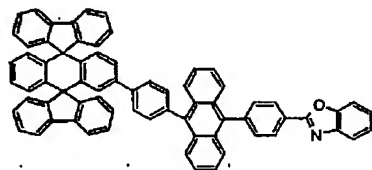
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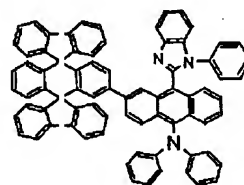
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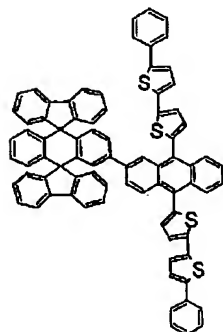
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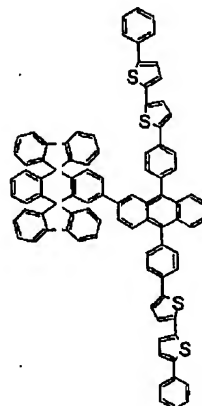
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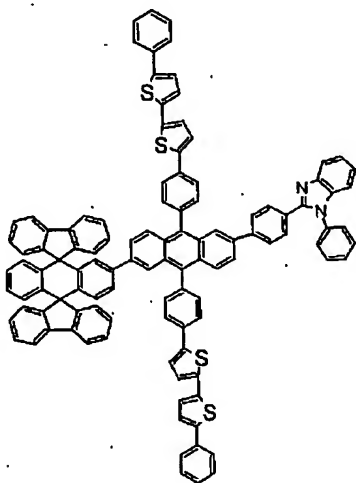
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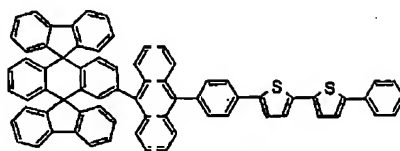
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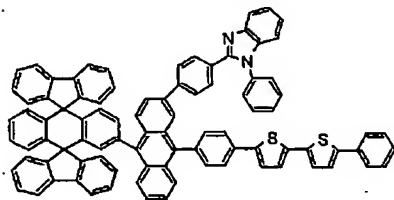
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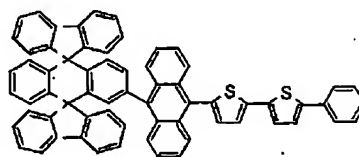
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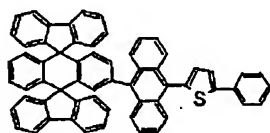
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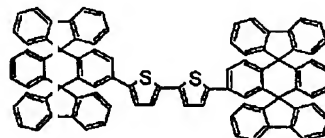
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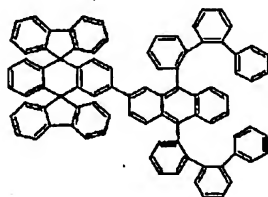
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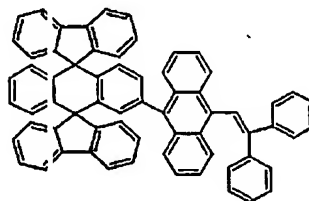
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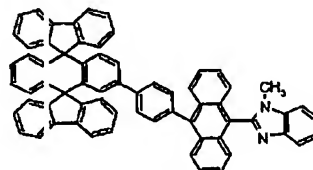
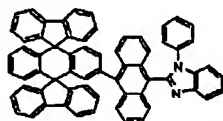
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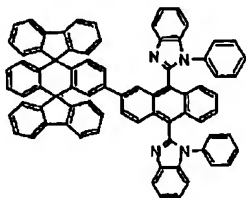


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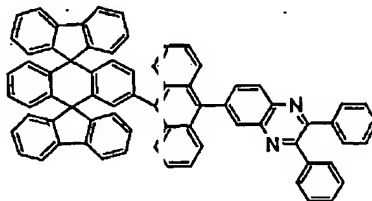


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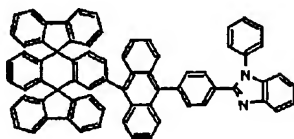
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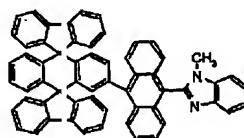
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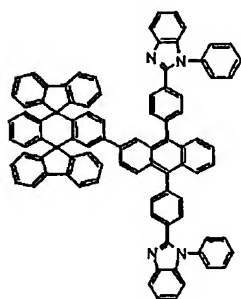
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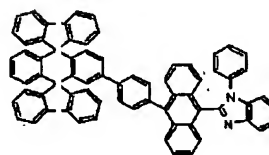
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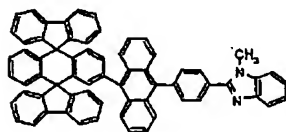
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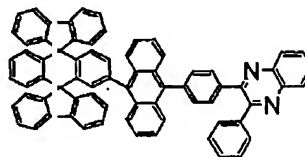
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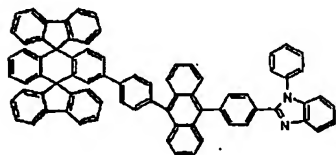
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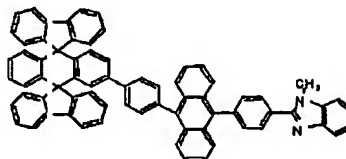
Chemical Compound 207



Chemical Compound 208



Chemical Compound 209

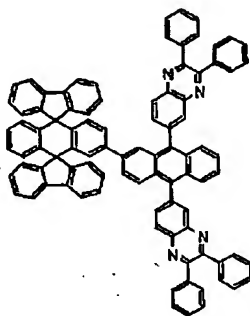


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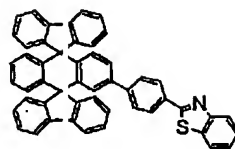
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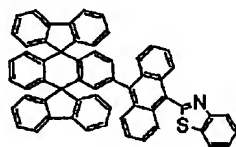
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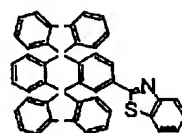
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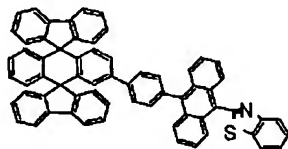
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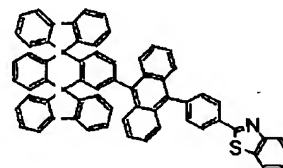
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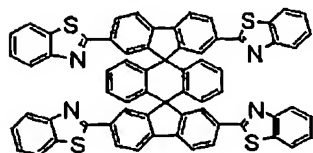
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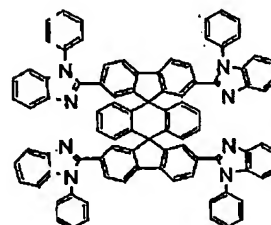
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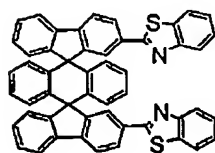
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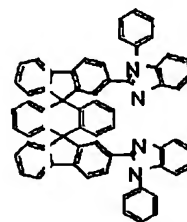
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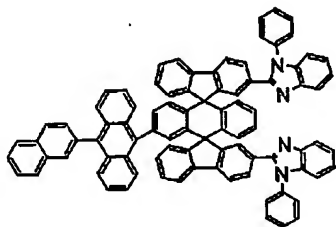
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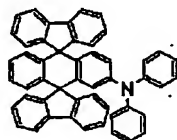
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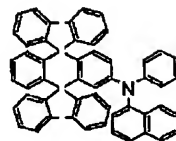
Chemical Compound 221

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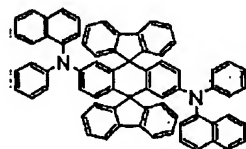
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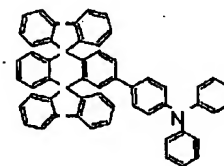
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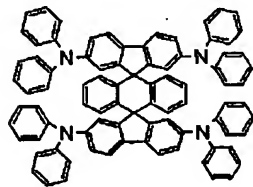
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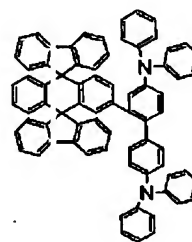
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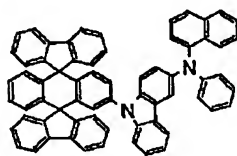
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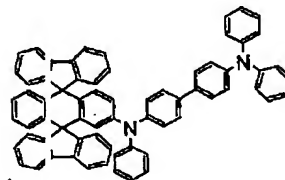
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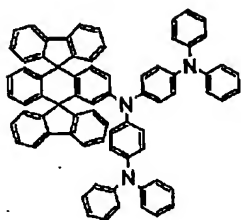
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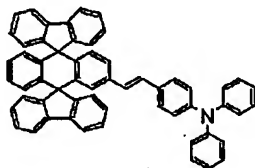
Chemical Compound 306



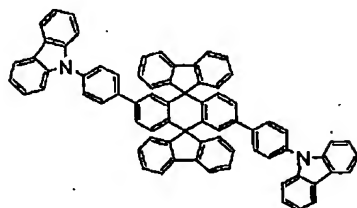
Chemical Compound 307

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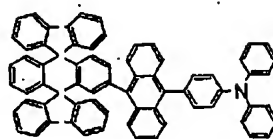
Chemical Compound 308



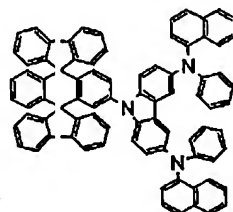
Chemical Compound 400



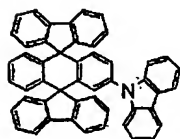
Chemical Compound 402



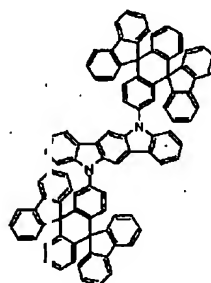
Chemical Compound 401



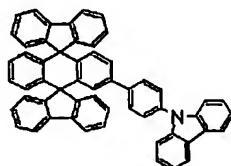
Chemical Compound 403



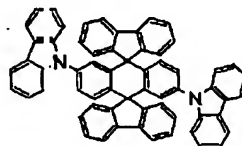
Chemical Compound 404



Chemical Compound 405



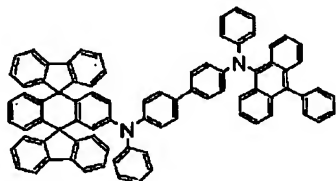
Chemical Compound 406



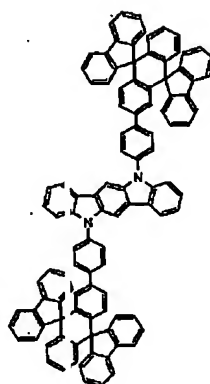
Chemical Compound 407

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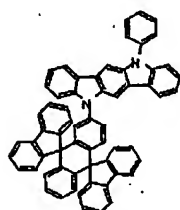
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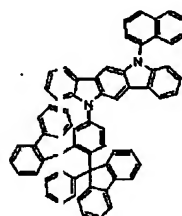
Chemical Compound 408



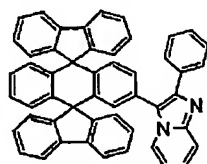
Chemical Compound 409



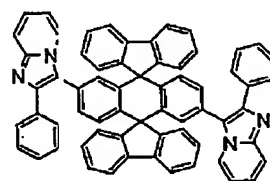
Chemical Compound 410



Chemical Compound 411



Chemical compound 412



Chemical Compound 413.

11. (Original) The chemical compound of Claim 1, wherein the compound has a melting point above about 300 °C.

12. (Original) The chemical compound of Claim 1, wherein the compound has a band-gap corresponding to visible light emission.

13. (Original) The chemical compound of Claim 12, wherein the band-gap for the visible light emission is from about 1.8 eV to about 3.5 eV.

14. (Original) The chemical compound of Claim 12, wherein the band-gap corresponds to blue, green or red light emission.

15. (Original) The chemical compound of Claim 1, wherein the compound has a hole-transporting property.

16. (Original) The chemical compound of Claim 1, wherein hole mobility in the

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compound is about $1 \times 10^{-7} \text{ cm}^2/\text{Vs}$ or greater.

17. (Original) The chemical compound of Claim 1, wherein the compound has an electron-transporting property.

18. (Original) The chemical compound of Claim 1, wherein electron mobility in the compound is about $1 \times 10^{-7} \text{ cm}^2/\text{Vs}$ or greater.

19. (Original) The chemical compound of Claim 1, wherein the compound has a hole-injecting property.

20. (Original) The chemical compound of Claim 1, wherein the compound has the highest occupied molecular orbital (HOMO) level from about -4.0 eV to about -6.0 eV.

21. (Original) The chemical compound of Claim 1, wherein the compound has an electron-injecting property.

22. (Original) The chemical compound of Claim 1, wherein the compound has the lowest unoccupied molecular orbital (LUMO) level from about -2.5 eV to about -4.0 eV.

23-88. (Canceled)

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DISCUSSION OF CLAIM AMENDMENTS

Claims 23-88 have been canceled without prejudice as being non-elected as discussed below. Claims 2, 3, 5 and 6 have been amended to correct typographical errors as set forth above. As such, no new matter has been added by the claim amendments. Entry of the claim amendments is respectfully requested. Upon entry of the amendments, Claims 1-22 are pending in this application.